The Director's Responsibility in Agricultural Communications 1/

by

Werner P. Meyer, Assistant to the Administrator (Research Communications), Cooperative State Experiment Station Service, U. S. Department of Agriculture

So much has been said and written about communications in recent years that the entire 3 days of this workshop could be taken up with that subject alone. As Dr. Byerly and Dr. Knoblauch emphasized earlier, the directors have final responsibility and authority for the successful administration of the agricultural experiment station program in their States. It includes communications.

We all appreciate what Foster Mohrhardt told us about the National Agricultural Library. It is linked directly with the Land-Grant College and Experiment Station Libraries. In most States the Library doesn't fall under the administration of station directors. Nevertheless it is one of the most important working tools for research workers. They know that the documents available in the library can be a major source of basic intelligence.

Closely related is an area about which much has been said and written in recent years---Science information. Its problems were outlined last January when President Kennedy's Science Advisory Committee issued its report on SCIENCE, GOVERNMENT, AND INFORMATION. It was prepared by a group of the Nation's outstanding scientists whose chairman was Dr. Alvin M. Weinberg, Director of the Oak Ridge Laboratory. The opening sentence said, "Transfer of information is an inseparable part of research and development." Copies were sent to directors.

1/ Summary of Remarks Before Workshop for Agricultural Experiment Station Directors, Washington, D. C., October 10, 1963.

Last year we also sent directors copies of the booklet, "Information and Communication in Biological Science." It was prepared for AIBS by the Center for Technology and Administration, The American University. Chapter II gives a variety of names commonly used in this area. They are "library science, documentation, technical information, science information, information storage and retrieval, or science communication.

At the turn of the century, one of the most widely useful "documentation and retrieval systems" was the old EXPERIMENT STATION RECORD. With the growth of technology in agriculture, with the development of many specialties, and with the advent of big science, the RECORD followed the usual course of progress. It "folded" in 1949.

Today's documentation and retrieval systems are good examples of how the physicists and engineers often anticipate the problems of the social scientists - in this case library science. During and after World War II, Dr. Ralph Shaw, now Dean of the Library School at Rutgers University, headed the Library here in USDA. As Librarian, he felt that there were many bugs in the methods employed to give library users quick reference to the information needed. Some queer looking machines began to appear over in the Library. They were early prototypes of the far more sophisticated machines documentalists know today. Ralph Shaw had obtained the cooperation of MIT's widely known electrical engineer Vannevar Bush.

Today's documentation and retrieval systems show great promise. But practicability of centralized systems with presently available equipment still needs to be proved. In last week's pink sheet, Dr. Byerly called attention to a study undertaken by Arthur D. Little, Inc., for the

National Science Foundation. Its primary consideration was the feasibility of centralizing facilities for the storage and retrieval of scientific documents. It estimated that at the present time there are well over half a million scientific articles, reports, and the like, produced in the English language annually. But it pointed out that currently "a collection of automated research systems are limited to sizes roughly one 20th or less of this magnitude."

Now let me make a few brief remarks about publication and dissemination.

Publication has always been regarded as one of the best yardsticks for measuring research accomplishment. But there is a wide divergence of opinion concerning the nature and purpose of publication. Even prior to the passage of the Hatch Act of 1887, directors of agricultural experiment stations recognized their responsibility for dissemination of research results. Dr. E. L. Sturtevant, in the first annual report of the Agricultural Experiment Station at Geneva, N. Y., said:

"The duties of an agricultural experiment station comprise dissemination as well as investigation. To bring its experiments before the public, not alone through its annual report, but as well in other ways is a duty that could not be neglected. Hence, at the earliest practical moment, your director commenced the issuance of weekly bulletins."

Largely because research scientists became engaged too much in demonstrating the results of their experiments, which was very popular among farmers early in the century, the Experiment Station Directors gave

full support and leadership to legislation that brought enactment of the Smith-Lever Act of 1914. Under that act the Cooperative Extension Service of each Land-Grant institution became the public information service in the State.

The Smith-Lever Act did not relieve the Experiment Station Directors of their responsibility to build public understanding of the purposes and accomplishments of agricultural research. In a majority of the States the work of publication editing, issuing releases, and doing a great variety of information work, is now combined under an agricultural information department. By and large the working staffs of those departments are among the most competent, loyal, and dedicated workers in the Land-Grant System. In the Senate appropriations hearings earlier this year, Dr. Byerly pointed out that last year's total expenditures for experiment stations was $190 million. Such expenditures, he told the Senate committee, are of value only if the findings prove useful to people. On request he was asked to insert for the record to what extent research findings are utilized by individual groups other than farmers. You will be interested in the statement, "Users of Station Re search Information" inserted on pp. 1019-22 in the Senate hearings. Prof. William Ward of Cornell's Department of Extension Teaching and Information provided the example. It was typical of the scope of public information coverage by agricultural college editors.

Dr. Knoblauch has asked me to summarize briefly the progress in agricultural communications research. Since 1957 this area has qualified under the Hatch Federal-grant program. Various elements of the

communications process--COMMUNICATOR--MESSAGE--CHANNEL--AUDIENCE--offer considerable opportunity for improvement with modern communication technology. True, various disciplines are doing research along these lines--some quite beyond but related to the journalism studies in which most agricultural college editors had their training. We might mention "communication theory." "semantics and linguistics," "psychology," "rural sociology," "social psychology," and "group dynamics." Agricultural communicators can learn a lot from all of them. But the editors are in the best position to help design projects that seek answers to practical communications problems in the State.

In a talk before the annual conference of the American Association of Agricultural College Editors at Stillwater, Oklahoma, last July, K. Robert Kern, Iow's Extension Editor, mentioned that two elements are badly needed to improve current agricultural communications research. These are better methodologies and development of survey standards usable by editors in all States.

This year 12 agricultural experiment stations have reported research qualifying under State moneys or Federal-grant. The listing takes less than a page. In contrast the list of communications studies compiled by AAACE covers 12 pages. Many projects in this longer list are evaluation studies which wouldn't qualify as station research. But the compilation shows that considerable interest exists among editors in doing research. We feel that the effort directed to research in agricultural communications has been inadequate. We hope directors will find ways whereby this can

be strengthened. In agricultural communications research, as in every other field of knowledge, graduate study and research provide the best medium for improving competence.

A practical application of communications research is that reported in Dr. Byerly's letter last week. It tells how Michigan State University is revising its entire series of agricultural experiment station and extension publications. This revision resulted from a year-long study of specific audience coverage. Director Kiehl of Missouri, who is here at this workshop, has authorized going ahead with an intensive publications review. We are now in the process of lining up consultants.

Before closing, let me say that there are many other angles of communications that might be covered if time permitted. An important one is internal communications. More and more directors are meeting this through station news letters, like Dr. Thorne's of Utah, the Texas Station Newsletter, Washington State's Newsletter for the Institute of Agricultural Sciences, and many others. And then there is a matter of communicating with other departments on the university campus. Last year Secretary Freeman returned from a trip that took him to a number of universities. He was amazed to find, in States with sizable agricultural colleges, how much professors in other departments did not know about agriculture's story of accomplishment.

The tools and methods for meeting the "information crisis" are improving every day. So is the competence of your information people. But the authority to push the right button of the system in your State belongs to you. We'll do our best to help in providing services from this end.

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